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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/783,236	02/13/2001	Robert J. Greenberg	S133-USA	1573

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EXAMINER

KHAN, OMAR A

ART UNIT	PAPER NUMBER
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3762

DATE MAILED: 06/19/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/783,236

Applicant(s)

GREENBERG ET AL. *d*

Examiner

Omar A Khan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 February 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-51 is/are pending in the application.
- 4a) Of the above claim(s) 5-10,31,32,37,41-47 and 49 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 11-30,33-36,38-40,48,50 and 51 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 February 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All   b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)                      4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)                      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.                      6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Election/Restrictions***

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-4, 11-30, 33-36, 38-40, 48, 50, and 51, drawn to an electrode array body, classified in class 607, subclass 53.
  - II. Claims 5-10, drawn to a method of reducing stress in the retina, classified in class 607, subclass 54.
  - III. Claim 31, drawn to a method of reducing stress in the retina, classified in class 607, subclass 54.
  - IV. Claim 32, drawn to a method of reducing stress in the retina, classified in class 607, subclass 54.
  - V. Claim 37, drawn to a method of reducing stress in the retina, classified in class 607, subclass 54.
  - VI. Claims 41-45, drawn to a feeder cable, classified in class 607, subclass 1.
  - VII. Claims 46-47, drawn to an electronics package, classified in class 607, subclass 2.

Inventions II-V and I, VI, VII are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another and materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP 806.05(e)). In this case, the apparatus as claimed can be used to practiced another and materially different process that does not require forming a strain relief tab, thinning the strain relief tab, fabricating the array from

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silicone, coiling a conductor in a feeder cable, and attaching the electrode array by grasping the handle, but by forming rounded edges for strain relief, fabricating the array from any biocompatible polymer, and pulling the conductor straight through the feeder cable.

Inventions I and VI are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP 806.05(c)). In the instant case, the combination as claimed does not require a cable containing a plurality of conductors. The subcombination has separate utility such as not having an electrode body with a generally oval shape but by having an electrode array body having a generally square planar shape.

Inventions I and VII are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP 806.05(c)). In the instant case, the combination as claimed does not require an electronics package encased in an electrically insulating biocompatible material. The subcombination has separate utility such as not having an electrode body with a generally oval shape but by having an electrode array body having a generally square planar shape.

Inventions VII and VI are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP 806.05(c)). In the instant

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case, the combination as claimed does not require a cable containing a plurality of conductors. The subcombination has separate utility such as not having an electronics packages encased in an electrically insulating biocompatible material but by an uninsulated electronics package integrated into the electrode array.

Claims 48, 49 link inventions I-VII. The restriction requirement among the linked inventions is subject to the nonallowance of the linking claim(s), claims 48,49. Upon the allowance of the linking claim(s), the restriction requirement as to the linked inventions shall be withdrawn and any claim(s) depending from or otherwise including all the limitations of the allowable linking claim(s) will be entitled to examination in the instant application. Applicant(s) are advised that if any such claim(s) depending from or including all the limitations of the allowable linking claim(s) is/are presented in a continuation or divisional application, the claims of the continuation or divisional application may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application. Where a restriction requirement is withdrawn, the provisions of 35 U.S.C. 121 are no longer applicable. In re Ziegler, 44 F.2d 1211, 1215, 170 USPQ 129, 131-32 (CCPA 1971). See also MPEP § 804.01.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

During a telephone conversation with Gary Schnittgrund on June, 5, 2002 a provisional election was made without traverse to prosecute the Invention I of claims 1-4, 11-30, 33-36, 38-40, 48, 50, and 51. Affirmation of this election must be made by applicant in replying to this

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Office action. Claims 5-10, 31, 32, 37, 41-47, and 49 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

### *Claim Rejections - 35 USC § 112*

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-4, 11-30, 33-36, 38-40, 48, 50 and 51 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is vague and indefinite for citing the limitation "such that" which is vague and indefinite as the scope of the claimed invention is not clear. Further, Claim 1 is rejected for citing the limitations "conforms to the spherical curvature of the retina" and "having a generally oval shape in the plane of the retina" because it would seem a connection to the human body is being claimed. Apparatus claims cannot cite connections to the human body. Examiner suggests - adapted to conform to the spherical curvature of the retina-. The phrase "it substantially" is vague and indefinite as it is unclear which element or elements it refers to.

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Claims 3, 12, 25, 28, 33 are vague and indefinite for citing the limitation “a radius of spherical curvature” as it unclear which three-dimensional radius of the electrode array is being referred to. Furthermore, the claims are vague and indefinite for citing the limitations “which” and “its” as the elements being referred to are not distinctly evident. The claims are vague and indefinite for citing the limitation “that is” as the scope of the claimed invention and the elements to which the limitation refers is not clear. The phrases “the edge” and “the array” are vague and indefinite as a lack of positive antecedent basis for these limitations in the claims. Also, it is unclear which edge of the electrode array “the edge” refers to. The phrase “the array” is vague and indefinite as it is unclear whether this refers to the oval shaped body or an electrode array not positively set forth in the claims. The phrase “in the retina from contact with the electrode array body” is vague and indefinite as it would seem a connection to the human body is being claimed. Apparatus claims cannot claim human body parts. Examiner suggests –from the electrode array adapted to contact the retina-.

Claims 11 and 21 are vague and indefinite for citing the limitation “curved part of the way” as it is not distinctly clear which element this refers. Further, the scope of the claimed invention is undefined as set forth by “part of the way”. The phrase “electrode array body is attached to the retina” is vague and indefinite as it would seem a connection to the human body is being claimed. Examiner suggests –electrode array body adapted to be attached to the retina-. Also, the phrase “which defines” is vague and indefinite the element to which the limitation refers is unclear.

Claim 13 is vague and indefinite for citing the limitation “reducing stress in the retina from attachment of the electrode array body” as it would seem a connection to the human body is

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being claimed. Apparatus claims cannot claim human body parts. The term "thinner" is a relative term, which renders the claims indefinite. The term "thinner" is not defined by the claims, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Claim 14 is vague and indefinite for citing the limitation "softer", which is a relative term. The term "softer" is not defined by the claims, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The phrase "then the rest of the electrode array body" is vague and indefinite since it has not been set forth that the electrode array body is made of silicone". Claim 14 is vague and indefinite for citing the limitation "the rest" for which there is insufficient antecedent basis in the claim.

Claims 16-18, 20, 21, 26, 34-36 are vague and indefinite for citing indefinite transitional language "wherein" or "having". The examiner suggests –further comprising–.

Claim 18 is vague and indefinite for citing the limitation "ring surrounds the mounting aperture" which is passive language. The examiner suggests –ring surrounding the mounting aperture–.

Claim 23 and 27 are vague and indefinite for citing the limitation "in the retina from contact with the electrode array body" as it would seem a connection to the human body is being claimed. Apparatus claims cannot claim human body parts.

Claim 25 is vague and indefinite for citing indefinite transitional language "having". Examiner suggests –wherein–.



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Claim 34 is vague and indefinite for citing the limitation “to transmit an electrical signal to the retina of the recipient” as it would seem a connection to the human body is being claimed. Furthermore, the claim is incomplete for omitting the structural relationship or connection between the plurality of electrodes and the electrode array body. Also, the phrase “an electrical signal” is inferentially included and not positively recited in the claims.

Claim 35 is incomplete for omitting the structural relationship or connection between the at least one electrode and the electrode array body.

Claim 48 is vague and indefinite for citing the limitation “it” in line 5 and 18 as it is not distinctly clear what element or elements “it” refers to. The phrase “curved part of the way” is vague and indefinite as it is the scope of the claimed invention as set forth by “the way” is unclear. Claim 48 is vague and indefinite for citing the limitation “electrode array body is attached to the retina” and “substantially conforms to the spherical curvature of the retina” as it would seem a connection to the human body is being claimed. Apparatus claims cannot claim human body parts. The phrase “a rounded edge” is vague and indefinite since it is not clear which edge, if not all and the entire edge, is rounded. Furthermore, the phrase “electrical signals” is inferentially included and not positively recited in the claims. The claim is incomplete for omitting an element to generate or produce the electrical signals. The phrase “at least one conductive electrode” is vague and indefinite as it is unclear whether this refers to the same as or different from the array of conductive electrodes. The phrase “signals” is vague and indefinite as it is unclear whether this refers to the same as or different from electrical signals cited earlier in the claims.

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Claims 50 and 51 are vague and indefinite for citing the limitation "retina caused by contact with the electrode array body" since it would seem a connection to the human body is being claimed. Apparatus claims cannot claim human body parts.

The claims are replete with indefinite language, and may be finally rejected upon correction of the 112 2<sup>nd</sup> paragraph rejections with new art or art of record.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 2, 18, 20, 26, 34, 35, 36, 39, and 40 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Chow (U.S. Patent No. 5,024,223).

*Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 3, 23, 25, 27, 28, 33, 50 and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chow (U.S. Patent No. 5,024,223) in view of Hrdlicka et al. (U.S. Patent No. 6,038,480). Chow clearly discloses all of the claimed limitations with the exception of a electrode array body having rounded edges and a radius of spherical curvature decreasing near its edges. Hrdlicka teaches a retinal electrode array assembly having rounded edges and a radius of curvature decreasing at the edges to reduce pressure and stress on the retina. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the retinal electrode assembly of Chow by rounding the edges and decreasing the radius of curvature to reduce stress and pressure concentrations on the retina. In the alternative, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the retinal electrode assembly of Chow to incorporate rounded edges and a decreased radius of curvature at the edges, since it was well known in the art that intraocular and retinal pressure are vital factors in retinal electrode design so that one of ordinary skill in the art would round the edges and decrease the radius of curvature to significantly reduce retinal pressure and stress concentrations.

5. Claims 3, 23, 25, 27, 28, 33, 50 and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chow (U.S. Patent No. 5,024,223) in view of Scribner (U.S. Patent No. 6,393,327). Chow clearly discloses all of the claimed limitations with the exception of a electrode array body having rounded edges and a radius of spherical curvature decreasing near its edges. Scribner teaches a retinal electrode array assembly having rounded edges and a radius of curvature decreasing at the edges to reduce pressure and stress on the retina. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the retinal electrode assembly of Chow by rounding the edges and decreasing the radius of curvature to reduce stress and pressure concentrations on the retina. In the alternative, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the retinal electrode assembly of Chow to incorporate rounded edges and a decreased radius of curvature at the edges, since it was well known in the art that intraocular and retinal pressure are vital factors in retinal electrode design so that one of ordinary skill in the art would round the edges and decrease the radius of curvature to significantly reduce retinal pressure and stress concentrations.

6. Claims 4, 22, 24, 29, 30, 38, are rejected under 35 U.S.C. 103(a) as being unpatentable over Chow (U.S. Patent No. 5,024,223). Chow discloses all of the claimed limitations with the exception of the electrode array body being composed of silicone of a shore hardness of 50 or 25. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the electrode array body of Chow to be made of silicone having a shore hardness of 50 or 25 since it was well known in the art that silicone of a shore hardness of 50 or 25 is a very common, soft, biocompatible material used in medical implantations and that intraocular and

retinal pressures govern electrode array design so that one of ordinary skill in the art would make the electrode array body of silicone having a shore hardness of 50 or 25.

### *Double Patenting*

A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

7. Claim 33 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 28.

When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

8. Claim 16 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 17.

When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

*Conclusion*


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Omar A Khan whose telephone number is (703) 308-0959. The examiner can be normally be reached on M-F, 9AM-6PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Angela Sykes, can be reached on (703) 308-5181. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3590 for regular communications and (703) 305-3590 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0873.

  
6/11/2002

Omar A Khan  
June 11, 2002

  
GEORGE R. EVANISKO  
PRIMARY EXAMINER  
6/14/2